## CLAIMS

What is claimed is:

1. An apparatus for generating usable energy from wind power in a water environment, comprising:
   - (a) an anchor having variable buoyancy;
   - (b) platform means for housing components of a wind-driven power-generating system, said platform means including winching means for attaching the platform means to the anchor and then pulling the platform means beneath a water's surface; and
   - (c) wind-power conversion means, attached to the platform means, for extending above the water's surface when the platform means is pulled beneath the water's surface and for converting wind power into usable energy.

2. An apparatus according to claim 1, wherein the wind-power conversion means is pivotally attached to the platform means so that the wind-power conversion means can be rotated from a substantially horizontal orientation to a substantially vertical orientation.

3. An apparatus according to claim 2, wherein the wind-power conversion means is housed in a tower having a ballast tank at its lower end, beneath the pivot attachment point, wherein when the ballast tank is flooded the tower is bias-weighted toward an upright position, and wherein when the ballast tank is empty its buoyancy rotates the tower into a substantially horizontal orientation.

4. A method according to claim 3, wherein the tower further houses an electrical generator, and wherein a cable transfers electricity generated by the electrical generator to the platform means.

5. An apparatus according to claim 1, wherein the platform means has variable buoyancy.

6. An apparatus according to claim 1, wherein the anchor includes a plurality of open-bottomed cavities for controlling buoyancy of the anchor.

7. An apparatus according to claim 1, further comprising a wave shield means disposed underneath the anchor for facilitating propulsion of the anchor through the water.

8. An apparatus according to claim 1, further comprising at least one additional anchor to which the platform means may be anchored.

9. An apparatus according to claim 1, further comprising sensing means for detecting wave and/or current conditions and control means for causing said winching means to pull said platform means further beneath the water's surface when severe conditions are detected.

10. An apparatus according to claim 1, further comprising transmission means for transferring the usable energy from the wind-power conversion means to the platform means.

11. An apparatus according to claim 10, wherein the platform means houses an electrolysis system for using electricity generated by the electrical generator to produce hydrogen from water.

12. An apparatus according to claim 1, further comprising propulsion means for driving the platform means and the anchor through the water.

13. A method according to claim 1, wherein the wind-power conversion means comprises a vertical-axis wind turbine.

14. A method for generating usable energy from wind power in a water environment, comprising:

(a) towing an anchor and a platform assembly to a use site, the platform assembly including a platform, a winch, a windmill and components for converting mechanical energy produced by the windmill into stored energy, wherein the anchor is attached to the platform by a cable;

(b) submerging the anchor at the use site; and

(c) using the winch to pull the platform to a use position below the surface of the water,

wherein in the use position the windmill extends substantially vertically from the platform beneath the water to a point above the surface of the water.

15. A method according to claim 14, further comprising a step of raising the windmill from a substantially horizontal orientation to the substantially vertical orientation.

16. A method according to claim 15, wherein the windmill may be raised by filling a ballast tank at the distal end of the windmill with water and may be lowered by evacuating to the water from the ballast tank.

17. A method according to claim 14, further comprising a step of detecting a severe wave condition and, in response, winching the platform further beneath the surface of the water.

18. A method according to claim 14, wherein the windmill comprises a vertical-axis turbine.

19. A method according to claim 14, wherein the windmill comprises elongated vanes.

20. A method according to claim 14, wherein the windmill comprises an electrical generator.

21. A method according to claim 14, wherein the components housed by the platform for converting mechanical energy produced by the windmill into stored energy comprise an electrical generator.

22. A method according to claim 21, wherein the components housed by the platform for converting mechanical energy produced by the windmill into stored energy further comprise and electrolysis device for producing hydrogen from water.

23. A method according to claim 14, wherein the anchor has variable buoyancy, which may be varied by pumping air into at least one chamber within the anchor and by venting air from said at least one chamber.

24. A method according to claim 23, wherein the anchor has at least one open-bottomed chamber, and wherein a wave shield is installed underneath the anchor prior to the towing in said step (a) to facilitate said towing.

25. A method according to claim 14, wherein the platform has variable buoyancy, and further comprising a step of reducing the buoyancy of the platform in connection with the winching performed in step (c).